

AMENDMENT TO THE CLAIMS

- 1-4. (canceled)
5. (currently amended) A method of detecting the presence of an obstruction inside a motorized throttle, comprising the steps of:
- recording a default position of a throttle plate;
 - applying a predetermined voltage to the throttle motor in the closing direction for a predetermined time;
 - recording a provisional closed position of the throttle plate;
 - determining a first displacement between the recorded default position and the recorded provisional closed position; and
 - ~~identifying an obstruction~~ if the first displacement is less than a predetermined displacement then indicating that the obstruction is present.
6. (original) The method of claim 5 further comprising the steps of verifying the absence of defined faults and reporting the presence of an obstruction to a powertrain control module.
7. (canceled)
8. (original) The method of claim 5 further comprising the step of alerting a powertrain control module that no obstruction exists if the first displacement is at least the predetermined displacement.
9. (original) The method of claim 5 wherein the predetermined displacement is 7 degrees.
10. (currently amended) A method of removing an obstruction inside a motorized throttle, ~~the throttle having a throttle plate~~, comprising the steps of:
- recording a default position of a throttle plate;

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applying a predetermined voltage to a throttle motor in a closing direction for a predetermined time;

recording a provisional closed position of the throttle plate by a throttle position sensor;

determining a first displacement between the recorded default position and the recorded provisional closed position;

identifying an obstruction if the first displacement is less than a predetermined displacement;

if the obstruction is identified then applying a predetermined deflection voltage to a the throttle motor to bang the throttle plate in a first direction; and

after banging the throttle plate in the first direction applying the predetermined deflection voltage to the throttle motor to bang the throttle plate in a second direction.

11. (currently amended) The method of claim 10 wherein the step of applying a predetermined deflection voltage to a throttle motor in a first and a second direction is performed within respective time periods adapted to prevent damage to the throttle motor.

12. (canceled)

13. (currently amended) The method of claim 10 wherein the predetermined deflection voltage is 12 volts.

14. (currently amended) A method of accurately recording a an actual closed throttle position of a throttle plate as a reference, comprising the steps of:

recording a default position of the throttle plate;

applying a predetermined deflection voltage to a throttle motor for driving the throttle plate in a closing direction for a predetermined time;

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recording a provisional closed position as a zero degree reference from which to control the throttle plate to a desired angle;

determining a first displacement between the recorded default position and the recorded provisional closed position; and

if the first displacement is greater than a predetermined displacement, then adopting the provisional closed position as the actual closed throttle position.

15. (original) The method of claim 14 wherein the predetermined time is 40 milliseconds.

16. (currently amended) The method of claim 14 wherein the predetermined deflection voltage is 12 volts.

17. (currently amended) A system for removing an obstruction inside a motorized throttle, comprising:

a throttle plate; and

a throttle motor, wherein a predetermined deflection voltage is applied to the throttle motor resulting in an impact torque applied to the throttle plate for banging ~~applies a predetermined torque to the throttle plate in a first and a second direction, and wherein the throttle motor applies the predetermined torque~~ predetermined deflection voltage is applied to the throttle plate motor ~~for a predetermined limited time in each direction for preventing damage to the throttle motor.~~

18. (original) The system of claim 17 wherein the predetermined torque is maximum steady-state torque.

19. (original) The system of claim 17 wherein the predetermined time is 80 milliseconds.

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